Stormwater Loading Methods Conference Call Summary – July 31, 2008

A series of conference calls of the Stormwater Technical Team have occurred recently to resolve final methods for stormwater loading calculations. All but one issue, regarding potential chemical concentration weighting for calculation of land use representative loads, have been resolved. This one remaining issue was the subject of a call on July 31, 2008. In addition, a table of chemicals related to sampling locations was also briefly discussed to determine that email comments on the table were acceptable to all. The final edited table is also shown below.

The original comment that generated the discussion of concentration weighting issue (consistent with previous meeting notes) and the current status of this issue are presented below.

City of Portland Comment 1. Impact of basin size on overall loading rate estimates for representative land use. We would like to discuss estimating land use loading rates on a flow-weighted basis as a more representative method.

Status – This comment was extensively discussed on July 3. It was agreed at that time that EPA would consider weighting of stormwater concentrations for the purpose of obtaining an aggregate stormwater concentration value for each representative land use. EPA conducted a data analysis that considered weighting by the following methods: basin size, flow, number properties draining to the sampling location, and impervious surface amount. It was agreed that EPA would issue their recommendation prior to the next Stormwater Technical Team call, which was held on July 31. EPA also issued an additional analysis immediately prior to the call evaluating calculating means for PCBs by various methods including using a flow weighted method.

Tentative agreement was reached on July 31 that weighting concentrations for each representative land use loading calculation could be conducted along side of generating other statistics on the overall sample data set for that land use. The weighting would be based on flow or some measure that is proportional to flow (e.g., basin size or basin size times runoff coefficient). However, EPA's final consent to this method was dependent upon seeing a proposed detailed method for conducting such a weighting calculation in the context of other methods already agreed to for the study (e.g., use of ProUCL with regards to non-detects and other calculation methods). Importantly, the discussion clarified that such a "weighted average" calculation yields one loading value for each representative land use. Consequently, it is necessary to calculate additional statistics for each land use, so that at least a range of uncertainty about the loading estimate can be expressed and potentially considered during subsequent RI loading calculations and Abiotic Fate and Transport Modeling.

Anchor agreed to develop a memo describing a proposed methodology for calculating the "weighted average" stormwater chemical concentrations. Once this method description is available, the Stormwater Technical Team will review, and the need for an additional meeting to discuss the proposed method will be determined at that time.

Table of Chemicals and Sites for Further Analysis.

As noted above, edits to the table shown below were discussed and accepted during the July 31 call. Final changes from the version last issued by the LWG are noted in bold.

Table X: Chemicals and Sites for Further Analysis

Outfall #	**Facility/Location**	**Chemicals for Further Analysis**
WR-22	OSM	PCBs, PAHs, phthalates, metals
WR-123	Schnitzer International Slip	PCBs, phthalates, metals
WR-384	Schnitzer - Riverside	Metals, PCBs
WR-107	GASCO	PAHs
WR-96	Arkema	Pesticides, ~~**phthalates**~~
WR-14	Chevron - Transportation	PAHs
WR-161	Portland Shipyard	PAHs, phthalates, metals, **PCBs**
WR-4	Sulzer Pump	PAHs, metals, **PCBs**
WR-145	Gunderson	PCBs, PAHs, phthalates, metals
WR-147/148	Gunderson (former Schnitzer)	Phthalates, metals, **PCBs, PAHs**
	GE	PCBs
WR-183/Basin R	Terminal 4 - Slip 1	PAHs, TOC
WR-181/Basin Q	Terminal 4 - Slip 1	Metals, PAHs, TOC
WR-177/Basin M	Terminal 4 - Slip 1	Metals, PAHs
WR-169/BasinD	Terminal 4	Metals, PAHs
WR-20/Basin L	Terminal 4 - Wheeler Bay	PAHs
OF-22B	City –Doane Lake Industrial Area	Pesticides, **Metals**
St.John's Bridge	Highway 30	To be analyzed to see if it is unique due to recent bridge repaving and painting